What is claimed is:

1. An isolated polypeptide selected from the group consisting of:

   (i) an isolated polypeptide comprising an amino acid having at least:

      (a) 70% identity;

      (b) 80% identity;

      (c) 90% identity; or

      (d) 95% identity

      to the amino acid sequence of SEQ ID NO: 2 over the entire length of SEQ ID NO: 2;

   (ii) an isolated polypeptide comprising the amino acid sequence of SEQ ID NO: 2,

   (iii) an isolated polypeptide which is the amino acid sequence of SEQ ID NO: 2, and

   (iv) a polypeptide which is encoded by a recombinant polynucleotide comprising the polynucleotide sequence of SEQ ID NO:1.

2. An isolated polynucleotide selected from the group consisting of:

   (i) an isolated polynucleotide comprising a polynucleotide sequence encoding a polypeptide that has at least

      (a) 70% identity;

      (b) 80% identity;

      (c) 90% identity; or

      (d) 95% identity;

   to the amino acid sequence of SEQ ID NO: 2, over the entire length of SEQ ID NO: 2;

   (ii) an isolated polynucleotide comprising a polynucleotide sequence that has at least:

      (a) 70% identity

      (b) 80% identity;

      (c) 90% identity; or

      (d) 95% identity;

   over its entire length to a polynucleotide sequence encoding the polypeptide of SEQ ID NO:2;

   (iii) an isolated polynucleotide comprising a nucleotide sequence that has at least:

(a) 70% identity;

(b) 80% identity;

(c) 90% identity; or

(d) 95% identity;

to that of SEQ ID NO:1 over the entire length of SEQ ID NO:1;

(iv) an isolated polynucleotide comprising a nucleotide sequence encoding the polypeptide of SEQ ID NO: 2;

(v) an isolated polynucleotide which is the polynucleotide of SEQ ID NO: 1;

(vi) an isolated polynucleotide obtainable by screening an appropriate library under stringent hybridization conditions with a probe having the sequence of SEQ ID NO:1 or a fragment thereof;

(vii) an isolated polynucleotide encoding a mature polypeptide expressed by the dexB gene contained in the *Streptococcus pneumoniae*; and

(viii) a polynucleotide sequence complementary to said isolated polynucleotide of (i), (ii), (iii), (iv), (v), (vi) or (vii).

3. An antibody antigenic to or immunospecific for the polypeptide of claim 1.

4. A method for the treatment of an individual:

(i) in need of enhanced activity or expression of the polypeptide of claim 1 comprising the step of:

(a) administering to the individual a therapeutically effective amount of an agonist to said polypeptide; or

(b) providing to the individual an isolated polynucleotide comprising a polynucleotide sequence encoding said polypeptide in a form so as to effect production of said polypeptide activity *in vivo*; or

(ii) having need to inhibit activity or expression of the polypeptide of claim 1 comprising:

(a) administering to the individual a therapeutically effective amount of an antagonist to said polypeptide; or

(b) administering to the individual a nucleic acid molecule that inhibits the expression of a polynucleotide sequence encoding said polypeptide; or

(c) administering to the individual a therapeutically effective amount of a polypeptide that competes with said polypeptide for its ligand, substrate , or receptor.

5. A process for diagnosing or prognosing a disease or a susceptibility to a disease in an individual related to expression or activity of the polypeptide of claim 1 in an individual comprising the step of:

(a) determining the presence or absence of a mutation in the nucleotide sequence encoding said polypeptide in the genome of said individual; or

(b) analyzing for the presence or amount of said polypeptide expression in a sample derived from said individual.

6. A method for screening to identify compounds that activate or that inhibit the function of the polypeptide of claim 1 which comprises a method selected from the group consisting of:

(a) measuring the binding of a candidate compound to the polypeptide or to the cells or membranes bearing the polypeptide or a fusion protein thereof by means of a label directly or indirectly associated with the candidate compound;

(b) measuring the binding of a candidate compound to the polypeptide or to the cells or membranes bearing the polypeptide or a fusion protein thereof in the presence of a labeled competitor;

(c) testing whether the candidate compound results in a signal generated by activation or inhibition of the polypeptide, using detection systems appropriate to the cells or cell membranes bearing the polypeptide;

(d) mixing a candidate compound with a solution containing a polypeptide of claim 1, to form a mixture, measuring activity of the polypeptide in the mixture, and comparing the activity of the mixture to a standard;

(e) detecting the effect of a candidate compound on the production of mRNA encoding said polypeptide and said polypeptide in cells, using for instance, an ELISA assay, or

(f) (1) contacting a composition comprising the polypeptide with the compound to be screened under conditions to permit interaction between the compound and the polypeptide to assess the interaction of a compound, such interaction being associated with a second component capable of providing a detectable signal in response to the interaction of the polypeptide with the compound; and

(2) determining whether the compound interacts with and activates or inhibits an activity of the polypeptide by detecting the presence or absence of a signal generated from the interaction of the compound with the polypeptide.

7. An agonist or an antagonist of the activity or expression polypeptide of claim 1.

8. An expression system comprising a polynucleotide capable of producing a polypeptide of claim 1 when said expression system is present in a compatible host cell.

9. A host cell comprising the expression system of claim 8 or a membrane thereof expressing a polypeptide selected from the group consisting of:

(i) an isolated polypeptide comprising an amino acid sequence selected from the group having at least:

(a) 70% identity;

(b) 80% identity;

(c) 90% identity; or

(d) 95% identity

to the amino acid sequence of SEQ ID NO: 2 over the entire length of SEQ ID NO: 2;

(ii) an isolated polypeptide comprising the amino acid sequence of SEQ ID NO: 2;

(iii) an isolated polypeptide which is the amino acid sequence of SEQ ID NO: 2, and

(iv) a polypeptide which is encoded by a recombinant polynucleotide comprising the polynucleotide sequence of SEQ ID NO:1.

10. A process for producing a polypeptide selected from the group consisting of:

(i) an isolated polypeptide comprising an amino acid sequence selected from the group having at least:

(a) 70% identity;

(b) 80% identity;

(c) 90% identity; or

(d) 95% identity

to the amino acid sequence of SEQ ID NO: 2 over the entire length of SEQ ID NO: 2;

(ii) an isolated polypeptide comprising the amino acid sequence of SEQ ID NO: 2;

(iii) an isolated polypeptide which is the amino acid sequence of SEQ ID NO: 2, and

(iv) a polypeptide which is encoded by a recombinant polynucleotide comprising the polynucleotide sequence of SEQ ID NO:1,

comprising the step of culturing a host cell of claim 9 under conditions sufficient for the production of said polypeptide.

11. A process for producing a host cell comprising the expression system of claim 8 or a membrane thereof expressing a polypeptide selected from the group consisting of:

(i) an isolated polypeptide comprising an amino acid sequence selected from the group having at least:

(a) 70% identity;

(b) 80% identity;

(c) 90% identity; or

(d) 95% identity

to the amino acid sequence of SEQ ID NO: 2 over the entire length of SEQ ID NO: 2;

(ii) an isolated polypeptide comprising the amino acid sequence of SEQ ID NO: 2;

(iii) an isolated polypeptide which is the amino acid sequence of SEQ ID NO: 2, and

(iv) a polypeptide which is encoded by a recombinant polynucleotide comprising the polynucleotide sequence of SEQ ID NO:1,

said process comprising the step of transforming or transfecting a cell with an expression system comprising a polynucleotide capable of producing said polypeptide of (i), (ii), (iii) or (iv)

when said expression system is present in a compatible host cell such the host cell, under appropriate culture conditions, produces said polypeptide of (i), (ii), (iii) or (iv).

12. A host cell produced by the process of claim 11 or a membrane thereof expressing a polypeptide selected from the group consisting of:

(i) an isolated polypeptide comprising an amino acid sequence selected from the group having at least:

(a) 70% identity;

(b) 80% identity;

(c) 90% identity; or

(d) 95% identity

to the amino acid sequence of SEQ ID NO: 2 over the entire length of SEQ ID NO: 2;

(ii) an isolated polypeptide comprising the amino acid sequence of SEQ ID NO: 2;

(iii) an isolated polypeptide which is the amino acid sequence of SEQ ID NO: 2, and

(iv) a polypeptide which is encoded by a recombinant polynucleotide comprising the polynucleotide sequence of SEQ ID NO:1.

13. A computer readable medium having stored thereon a member selected from the group consisting of: a polynucleotide comprising the sequence of SEQ ID NO:1; a polypeptide comprising the sequence of SEQ ID NO: 2; a set of polynucleotide sequences wherein at least one of said sequences comprises the sequence of SEQ ID NO:1; a set of polypeptide sequences wherein at least one of said sequences comprises the sequence ofSEQ ID NO: 2; a data set representing a polynucleotide sequence comprising the sequence of SEQ ID NO:1; a data set representing a polynucleotide sequence encoding a polypeptide sequence comprising the sequence of SEQ ID NO: 2; a polynucleotide comprising the sequence of SEQ ID NO:1; a polypeptide comprising the sequence of SEQ ID NO: 2; a set of polynucleotide sequences wherein at least one of said sequences comprises the sequence of SEQ ID NO:1; a set of polypeptide sequences wherein at least one of said sequences comprises the sequence of SEQ ID NO: 2; a data set representing a polynucleotide sequence comprising the sequence of SEQ ID

NO:1; a data set representing a polynucleotide sequence encoding a polypeptide sequence comprising the sequence of SEQ ID NO: 2.

14. A computer based method for performing homology identification, said method comprising the steps of providing a polynucleotide sequence comprising the sequence of SEQ ID NO:1 in a computer readable medium; and comparing said polynucleotide sequence to at least one polynucleotide or polypeptide sequence to identify homology.

15. A further embodiment of the invention provides a computer based method for polynucleotide assembly, said method comprising the steps of: providing a first polynucleotide sequence comprising the sequence of SEQ ID NO:1 in a computer readable medium; and screening for at least one overlapping region between said first polynucleotide sequence and a second polynucleotide sequence.